

## INTISARI

### PERBANDINGAN KESINTASAN HIDUP PADA PASIEN *NON SMALL CELL LUNG CARCINOMA ADENOCARCINOMA TYPE* STADIUM IV DENGAN MUTASI EGFR EKSON 19 DAN EKSON 21 YANG MENDAPAT TERAPI TIROSINE KINASE INHIBITOR DI RSUP DR. SARDJITO YOGYAKARTA

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**Latar Belakang:** Kanker paru dikelompokkan menjadi kanker non small cell lung carcinoma (NSCLC) dan small cell lung carcinoma (SCLC). Salah satu penyebab pertumbuhan NSCLC adalah mutasi gen pada jalur sinyal epidermal growth factor receptor (EGFR). Mutasi gen EGFR yang paling sering terjadi yaitu mutasi pada exon 18, 19, 20, 21. Tيروسine kinase inhibitor adalah terapi target anti-EGFR yang memiliki efek lebih baik pada mutasi EGFR exon 19 dan 21. Penelitian ini bertujuan untuk membandingkan kesintasan hidup pasien yang mendapat tirosine kinase inhibitor lini pertama terhadap eksposisi mutasi EGFR exon 19 dan 21

**Tujuan Penelitian:** Untuk membandingkan kesintasan hidup pasien yang mendapat tirosine kinase inhibitor lini pertama terhadap eksposisi mutasi EGFR exon 19 dan 21 yang menjalani perawatan di RSUP Sardjito.

**Metode Penelitian:** Penelitian ini adalah desain kohort ambispektif. Subjek adalah pasien NSCLC jenis adenokarsinoma paru usia lebih dari 18 tahun dengan mutasi EGFR ekson 19 dan 21 yang mendapat terapi TKI yang kontrol dan rawat inap di RSUP Dr. Sardjito. Jumlah total subyek penelitian sebanyak 124. Penelitian ini membandingkan respons tirosine kinase inhibitor lini pertama pada kelompok mutasi exon 19 dan exon 21 dengan menilai angka ketahanan hidup atau overall surviva (OS).

**Hasil Penelitian:** : Kelompok mutasi exon 19 memiliki angka ketahan hidup atau overall survival (OS) 17 bulan dan median 32 bulan untuk kelompok mutasi exon 21 ( $p=0,760$ ). **Kesimpulan:** Pasien NSCLC adenocarcinoma type stadium IV yang mendapatkan terapi tyrosine kinase inhibitor lini pertama dengan mutasi EGFR ekson 19 tidak memiliki kesintasan hidup yang lebih baik dibandingkan pasien dengan mutasi EGFR ekson 21.

Kata Kunci : NSCLC, adenokarsinoma, mutasi EGFR exon 19 dan ekson 21, gefitinib, overall survival

## ABSTRACT

### COMPARISON OF OVERALL SURVIVAL IN *NON SMALL CELL LUNG CARCINOMA ADENOCARCINOMA TYPE* STADIUM IV PATIENTS WITH EGFR EXON 19 AND EXON 21 MUTATIONS THAT RECEIVED TYROSINE KINASE INHIBITOR THERAPY IN Dr. SARDJITO HOSPITAL YOGYAKARTA

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**Background:** Lung cancer is classified into non small cell lung carcinoma (NSCLC) and small cell lung carcinoma (SCLC) cancer. One of the causes of NSCLC growth is gene mutation in the epidermal growth factor receptor (EGFR) signaling pathway. The most common EGFR gene mutations are mutations in exons 18, 19, 20, 21. Tyrosine kinase inhibitor is an anti-EGFR targeted therapy that has a better effect on EGFR mutations on exons 19 and 21. This study aims to compare the survival of patients with received first-line tyrosine kinase inhibitor against exposure to EGFR mutations exon 19 and 21.

**Objective:** To compare the survival of patients who received first-line tyrosine kinase inhibitor against the exposition of EGFR mutations exons 19 and 21 undergoing treatment at Sardjito Hospital.

**Methods:** This study was an ambispective cohort design. Subjects were lung adenocarcinoma NSCLC patients aged more than 18 years with EGFR mutations exons 19 and 21 who received TKI therapy who were controlled and hospitalized in Dr. Sardjito. The total number of study subjects was 124. This study compared the first-line tyrosine kinase inhibitor response in the exon 19 and exon 21 mutation groups by assessing overall survival (OS).

**Results:** The exon 19 mutation group had an overall survival (OS) of 17 months and a median of 32 months for the exon 21 mutation group ( $p = 0.760$ ).

**Conclusion:** Patients with type IV adenocarcinoma NSCLC receiving first-line tyrosine kinase inhibitor therapy with exon 19 EGFR mutations did not have a better survival rate than patients with exon 21 EGFR mutations.

*Keywords: NSCLC, adenocarcinoma, mutations in EGFR exon 19 and exon 21, gefitinib, overall survival*